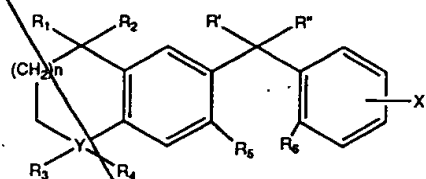


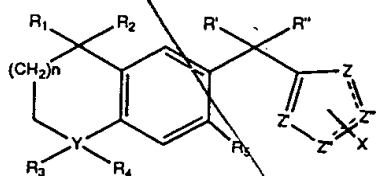
IN THE CLAIMS

Please amend claim 4 to read as follows:

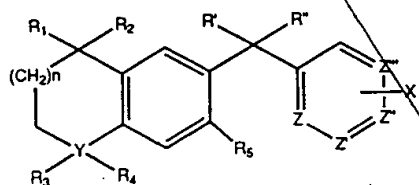
4. (Amended) A compound having the formula:



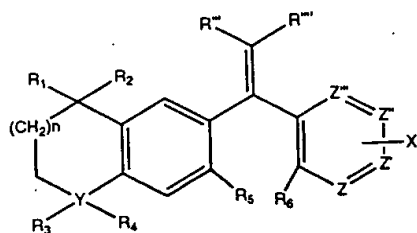
or



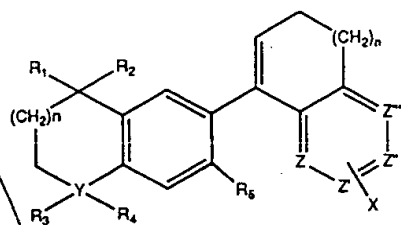
or



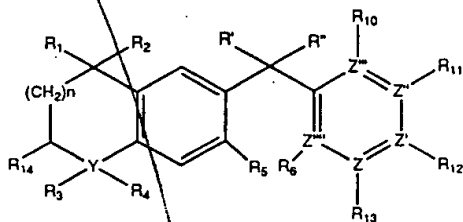
or



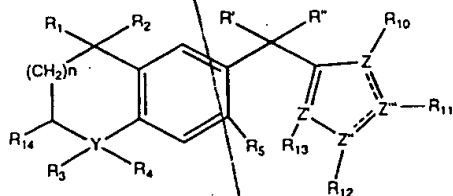
or



or



or



wherein

R<sub>1</sub> and R<sub>2</sub>, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO<sub>2</sub>, or a pharmaceutically acceptable salt;

R<sub>3</sub> represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R<sub>4</sub> represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R<sub>4</sub> does not exist if Y is N, and neither R<sub>3</sub> or R<sub>4</sub> exist if Y is S, O, CHOH, CO, SO, or SO<sub>2</sub>;

R' and R'' represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R'' taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, (R<sub>7</sub>R<sub>8</sub>)N-N=, R<sub>17</sub>O-N=, R<sub>17</sub>N=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy, cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R''' and R'''' represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R''' and R'''' taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R<sub>5</sub> represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR<sub>7</sub>, SR<sub>7</sub>, NR<sub>7</sub>R<sub>8</sub>, or (CF)<sub>n</sub>CF<sub>3</sub>, but R<sub>5</sub> cannot be hydrogen if together R<sub>6</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub> are all hydrogen, Z, Z', Z'', and Z''' are all carbon, and R' and R'' represent H, OH, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> acyloxy or R' and R'' taken together form an oxo, methano, or hydroxyimino group;

R<sub>6</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub>, R<sub>13</sub> each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR<sub>7</sub>, SR<sub>7</sub>, NR<sub>7</sub>R<sub>8</sub> or (CF)<sub>n</sub>CF<sub>3</sub>, and exist only if the Z, Z', Z'', Z''', or Z'''' from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z'', Z''', or Z'''' from which it originates is N, and where one of R<sub>6</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> or R<sub>13</sub> is X;

R<sub>7</sub> represents hydrogen or a lower alkyl having 1-6 carbons;

R<sub>8</sub> represents hydrogen or a lower alkyl having 1-6 carbons;

R<sub>9</sub> represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-fluorophenyl, or q-iodophenyl, where q=2-4;

$R_{14}$  represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

$R_1$  represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR, and SR, substituted alkenes),  $R_2$ , alkyl carboxylic acid (including halogen, acyl, OR, and SR, substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR, and SR, substituted alkenes), alkyl amines (including halogen, acyl, OR, and SR, substituted alkyls), and alkenyl amines (including halogen, <sup>acyl</sup>acyl, OR, and SR, substituted alkenes);

X is COOH, tetrazole,  $PO_3H$ ,  $SO_3H$ , CHO,  $CH_2OH$ ,  $CONH_2$ , COSH,  $COOR$ ,  $COSR$ ,  $CONHR$ , or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO,  $CH_2OH$ ,  $CONH_2$ ,  $COOR$ ,  $CONHR$ , or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z'', Z''' and Z''', each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

PATENT  
203/268

Respectfully submitted,

Dated: November 4, 1994

By:

  
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